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### **REMARKS**

Reconsideration and allowance are requested. Claims 1 - 12 were previously canceled and claims 13-36 were previously presented.

#### **Rejection of Claim 28 Under 35 U.S.C. § 102(e)**

The Examiner rejects claim 28 under 35 U.S.C. § 102(e) as being anticipated by Alleva et al., U.S. Patent No. 5,970,449 ("Alleva"). Applicants have cancelled claim 28 without prejudice or disclaimer and moved its limitations into claim 29. Dependent claims have been amended accordingly. Therefore, Applicants submit that the rejection of this claim is moot.

#### **Rejection of Claims 17-19, 21-27, 29-34, and 36 Under 35 U.S.C. § 103(a)**

The Examiner rejects claims 17-19, 21-27, 29-34 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Alleva in view of Sukkar, U.S. Patent No. 5,613,037 ("Sukkar"). Applicants respectfully traverse this rejection and provide further arguments regarding why Alleva should not be combined with Sukkar. Applicants note that the standard by which the motivation to combine is a preponderance of the evidence. MPEP 2142. We shall show below that the preponderance of the evidence supports the conclusion that there is no motivation or suggestion to combine these references.

Applicants note initially the reasons the Examiner gives for supporting the assertion that there is motivation or a suggestion to combine these teachings. With regards to claim 17, the Examiner states that it would be obvious to implement the acoustic model teachings of Sukkar into the recognition system taught by Alleva for the purpose of accurately producing vector representations of the received input speech. F.O.A., Page 4. What we shall see, is that Alleva already mentions a suitable speech recognition system and that there is no suggestion or motivation within Alleva that its speech recognition system has any accuracy

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problems or issues. Furthermore, the Alleva speech recognition system already utilizes the produced vector representations of the received speech which is the Examiner's articulated reason for combining.

Alleva Provides No Motivation of Suggestion To Combine With Sukkar

In each place in Alleva where speech recognition is mentioned, he fails to suggest or reference any deficiency in the speech recognition process. Alleva throughout assumes that the speech recognizer produces accurate text associated with the speech. One of the likely reasons for this is that the main focus and purpose of Alleva is not the speech recognizer but his text normalization process that processes the text generated from a speech recognizer. Therefore, Alleva does not provide details regarding the speech recognition process. See, e.g., col. 1, lines 11 - 32; col. 4, lines 44-53, 67; col. 5, lines 7 - 11; col. 7, line 18; col. 8, lines 32 - 35. There is simply no hint of any need or desire for improved speech recognition by Alleva. "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). MPEP 2143.01 (emphasis in original).

The Examiner stated on page 4 that the implementation of acoustic models in a speech recognition system was "well known in the art." However, MPEP 2143.01 states:

A statement that modifications of the prior art to meet the claimed invention would have been " 'well within the ordinary skill of the art ' at the time the claimed invention was made' " because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (Court reversed obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.).

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Accordingly, Applicants respectfully urge the Examiner to reconsider combining these references where Alleva simply makes no suggestion regarding any improvement in speech recognition.

The Alleval Speech Recognizer Already Uses Vector Representations

The Examiner's primary reason for combining these references is that Sukkar's teachings would provide accurately producing vector representations of the received input speech. However, this feature is already part of Alleva's speech recognizer via the incorporation by reference of Application No. 08/655,273 to Huang et al. ("Huang et al.") (Now Patent No. 5, 937,384 to Huang et al. cited by the Examiner). Alleva already identifies a "suitable" speech recognition engine and reference Huang et al.'s recognizer. Huang et al. describe in numerous places the use of vector representations of received input speech. See, e.g., FIG. 2, feature 44; FIG. 8; feature 124. Therefore, Applicants respectfully submit that the very reason for combining articulated by the Examiner, namely to provide vector representations of the received speech input, is already taught and utilized by Alleva and therefore provides no motivation or suggestion to utilize redundant teachings from Sukkar.

Furthermore, the very citation and identification of a particular "suitable" speech recognition engine by Alleva teaches away from utilizing a separate engine from Sukkar. There is no suggestion by Alleva that the selected speech recognition is deficient in any manner, or weak when it comes to recognizing digits and so forth. Alleva's selected speech recognition engine from Huang et al. already produces vector representations of the received input speech. Therefore, one of skill in the art would not be motivated to use Sukkar's speech recognizer "for the purpose of accurately producing vector representations of the received input speech."

For this reason, claim 17 and dependent claims 18 - 27 are patentable and in condition for allowance.

With regards to claim 25, the Examiner states that Alleva should be combined with

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Sukkar for the purpose of providing reliable and accurate recognition and thereby improve system performance. However, as stated above, Alleva already selected a suitable speech recognition engine and makes not suggestion or hint that the accuracy of the speech recognition is wanting. As cited above, just because reference can be combined does not get one over the hurdle of identifying a supportable motivation or suggestion to combine references. Here, because Alleva is so focused on the text normalization process, they identify a suitable speech recognizer and make no mention of any need for improved recognition accuracy. Therefore, claim 25 is patentable and in condition for allowance.

Claims 29 - 31 are patentable for the same reasons set forth above.

With regards to claim 32, the Examiner states that the motivation for combining is for the "purpose of ensuring that only valid digit information is recognized and classified as actual digit speech." However, Alleva assumes accurate speech recognition and therefore simply identifies no deficiency or problems in the recognition of digits. In fact, in each case, Alleva shows accurate digit recognition, as in FIG. 9. The Examiner states the motivation as though Alleva fails to indicate accurate recognition of spoken digits but that is simply not the case. The requisite motivation or suggestion simply does not exist in Alleva that there is any need to insure that valid digit information is accurately recognized. Therefore, claim 32 is patentable.

For the same reasons set forth above, claims 33 and 34 are patentable and in condition for allowance.

#### **Rejection of Claims 13-16, 20 and 35 Under 35 U.S.C. § 103(a)**

The Examiner rejects claims 13-16, 20 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Alleva, in view of Sukkar and further in view of Huang et al.. Applicants respectfully traverse this rejection and submit that these claims are patentable.

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The identified motivation to combining these references includes the following: (1) for producing vector representations of input speech; (2) for improving speech recognition accuracy; (3) more reliable and accurate recognition; and (4) for to accurately distinguish numeric input from other speech input. Applicants submit that each of these issues is adequately identified above with regards to the lack of motivation or suggestion to combine Alleva with Sukkar. Therefore, claims 13-16, 20 and 35 are patentable and in condition for allowance.

In the Examiner's response to Applicants' last submission, the Examiner states with reference to claims 17 - 19, 21 - 27, 29 - 34 and 36, that the motivation to combine the references is based on the fact that "implementation of acoustic speech models in a speech recognition system was well known to one of ordinary skill in the art of speech signal processing to achieve improved accuracy." F.O.A., page 15. Applicants believe that this is an inappropriate basis for combining two references and again refer to MPEP 2143.01 which expressly states that such a conclusion (i.e., that the claimed invention is well within the ordinary skill in the art) by the Examiner is not enough to carry the burden of establishing a prima facie case and would likely be unsuccessful in an appeal. There simply must be some objective reason to combine the teachings of the references. As explained above, Alleva simply fails to provide any suggestion or motivation that the selected speech recognition engine is lacking in any way.

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### CONCLUSION

Having addressed the rejection of claims 13 - 36, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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